

# **AT530 User Manual**

<u>1AT530 Features</u> .....	4
<u>1AT530 Features</u> .....	4
<u>1.1 Appearance</u> .....	4
<u>1.1 Appearance</u> .....	4
<u>1.2 Interface</u> .....	4
<u>1.2 Interface</u> .....	4
<u>1.3 Electricity characteristic</u> .....	4
<u>1.3 Electricity characteristic</u> .....	4
<u>1.4 Software</u> .....	4
<u>1.4 Software</u> .....	4
<u>1.5 Standard and Protocols</u> .....	5
<u>1.5 Standard and Protocols</u> .....	5
<u>1.6 Compliant Standard</u> .....	5
<u>1.6 Compliant Standard</u> .....	5
<u>1.7 Operating requirement</u> .....	5
<u>1.7 Operating requirement</u> .....	5
<u>1.8 Package</u> .....	6
<u>1.8 Package</u> .....	6
<u>1.9 Installation</u> .....	6
<u>1.9 Installation</u> .....	6
<u>2Web Configuration</u> .....	6
<u>2Web Configuration</u> .....	6
<u>2.1 Access Web setting page</u> .....	6
<u>2.1 Access Web setting page</u> .....	6
<u>2.2 Current state</u> .....	7
<u>2.2 Current state</u> .....	7
<u>2.3 Network</u> .....	8
<u>2.3 Network</u> .....	8
<u>2.3.1 Wan Config</u> .....	8
<u>2.3.1 Wan Config</u> .....	8
<u>2.3.2 LAN Config</u> .....	9
<u>2.3.2 LAN Config</u> .....	9
<u>2.4 VoIP SIP Config</u> .....	10
<u>2.4 VoIP SIP Config</u> .....	10
<u>2.5 Advance</u> .....	12
<u>2.5 Advance</u> .....	12
<u>2.5.1 DHCP Server</u> .....	12
<u>2.5.2 NAT</u> .....	13
<u>2.5.3 Net Service</u> .....	14
<u>2.5.4 Firewall settings</u> .....	15
<u>2.5.5 QoS settings</u> .....	16
<u>2.5.6 Advance SIP settings</u> .....	17
<u>2.5.7 Digital Map</u> .....	18
<u>2.5.8 Call Service Settings</u> .....	20
<u>2.5.9 MMI Filter</u> .....	22
<u>2.5.10 Audio Settings</u> .....	22
<u>2.5.11 VPN</u> .....	23
<u>2.5.12 Memory Key</u> .....	24
<u>2.6 Dial-Peer</u> .....	24
<u>2.6 Dial-Peer</u> .....	24

<a href="#">2.7 Config Manage</a>	25
<a href="#">2.7Config Manage</a>	25
<a href="#">2.8 Update</a>	25
<a href="#">2.8Update</a>	25
<a href="#">2.8.1 Web Update:</a>	25
<a href="#">2.8.2 TFTP/FTP Update:</a>	25
<a href="#">2.8.3 Auto Provisioning:</a>	25
<a href="#">2.9 System Manage</a>	27
<a href="#">2.9System Manage</a>	27
<a href="#">2.9.1 Account Manage</a>	27
<a href="#">2.9.2 Phone Book</a>	27
<a href="#">2.9.3 Syslog Config</a>	27
<a href="#">2.9.4 Time Set</a>	28
<a href="#">2.9.5 Reboot</a>	28
<a href="#">3Use keypad configure AT530 IP phone</a>	29
<a href="#">3Use keypad configure AT530 IP phone</a>	29
<a href="#">3.1 Keypad function</a>	29
<a href="#">3.1Keypad function</a>	29
<a href="#">3.2 Keypad Menu</a>	30
<a href="#">3.2Keypad Menu</a>	30
<a href="#">4Telnet Console</a>	32
<a href="#">4Telnet Console</a>	32
<a href="#">4.1 Introduce</a>	32
<a href="#">4.1Introduce</a>	32
<a href="#">4.2 Global Command</a>	33
<a href="#">4.2Global Command</a>	33
<a href="#">5Tree Structure</a>	34
<a href="#">5Tree Structure</a>	34
<a href="#">6Network Diagnosis</a>	40
<a href="#">6Network Diagnosis</a>	40
<a href="#">7Restore to factory default</a>	41
<a href="#">7Restore to factory default</a>	41
<a href="#">8POST Mode(safe mode)</a>	42
<a href="#">8POST Mode(safe mode)</a>	42
<a href="#">9FAQ</a>	43
<a href="#">9FAQ</a>	43
<a href="#">9.1.1 How many servers may AT530 register simultaneously?</a>	43
<a href="#">9.1.2 Why the settings vanish after reboot?</a>	43
<a href="#">9.1.3 How to use the dial rule?</a>	43
<a href="#">9.1.4 How to use speed dial function?</a>	44
<a href="#">9.1.5 How to configure digital map?</a>	44
<a href="#">9.1.6 How to use Call Forward, Call Transfer and 3-way Conference calls?</a>	44
<a href="#">9.1.7 How to use the record function?</a>	46
<a href="#">9.1.8 How to use set the IP type via keypad?</a>	47
<a href="#">9.1.9 VLAN implement</a>	47

## 1 AT530 Features

### 1.1 Appearance



### 1.2 Interface



Power: Output Power:12VDC,500mA.

WAN: RJ45 port.

LAN: RJ45 port.

### 1.3 Electricity characteristic

- **Speciality of electric:** output the 12V 500mA DC
- **The network connects:** 2 RJ45 connect, a WAN, a LAN

### 1.4 Software

- Support two sip accounts at the same time.
- Redundancies server support.
- NAT, Firewall.
- DHCP client and server.
- Support PPPoE, (used for ADSL, cable modem connecting).
- Support major G7.xxx CODEC.
- VAD,CNG.

- G.168 compliant 32ms echo cancellation
- Tone generation and Local DTMF re-generation according with ITU-T
- E.164 dial plan and customized dial rules
- Hotline.
- Speed Dial
- Call Forward, Call Transfer, 3-way conference calls
- Record
- Caller ID display
- DND(Do Not Disturb),Black List,Limit List
- Upgrade firmware through FTP, TFTP or HTTP,.
- Web management.
- Telnet remote management.
- adjustable user password and super password

## 1.5 Standard and Protocols

- IEEE 802.3 /802.3 u 10 Base T / 100Base TX
- PPPoE: PPP Protocol over Ethernet
- DHCP Client and Server: Dynamic Host Configuration Protocol
- G.711 u/a; G729, G7231 5.3/6.3 audio Codec
- SIP RFC3261, RFC 2543
- IAX2
- TCP/IP: Internet transfer and control protocol
- RTP: Real-time Transport Protocol
- RTCP: Real-time Control Protocol
- VAD/CNG save bandwidth
- Telnet: Internet's remote login protocol
- DNS: Domain Name Server
- TFTP: Trivial File Transfer Protocol
- HTTP: Hyper Text Transfer protocol
- FTP: File Transfer protocol

## 1.6 Compliant Standard

- CE|EN55024,EN55022
- FCC part15
- comply with ROHS in EU
- comply with ROHS in China



### Explanation:

The letter "e" is the first letter of "environment" and "electronic", The rim is a round with two arrow , stands for recycle. The number 20 stands for the years of environment protection. Please note the years of environment protection is not discarding year nor usage life

## 1.7 Operating requirement

- Operation temperature: 0 to 40° C (32° to 104° F)
- Storage temperature: -30° to 65° C (-22° to 149° F)
- Humidity: 10 to 90% no dew

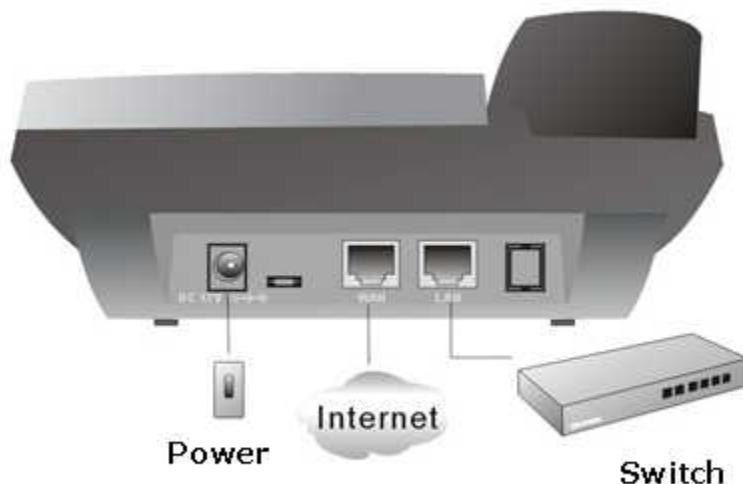
## 1.8 Package

- Size: 338×220×85mm
- Packing List
  - ✓ AT530 IP phone
  - ✓ Power adaptor (output 12v ,500mA)
  - ✓ Manual CD

## 1.9 Installation

Use ethernet cable to connect AT530's LAN port and your computer. Set your computer's ip to the network 192.168.10.x or using dynamic obtain IP. Open your web browser and key in 192.168.10.1. Then you will see the logon page of AT530, the default username and password is admin/admin for administrator and guest/guest for guest.

Set up page for VoIP use only:



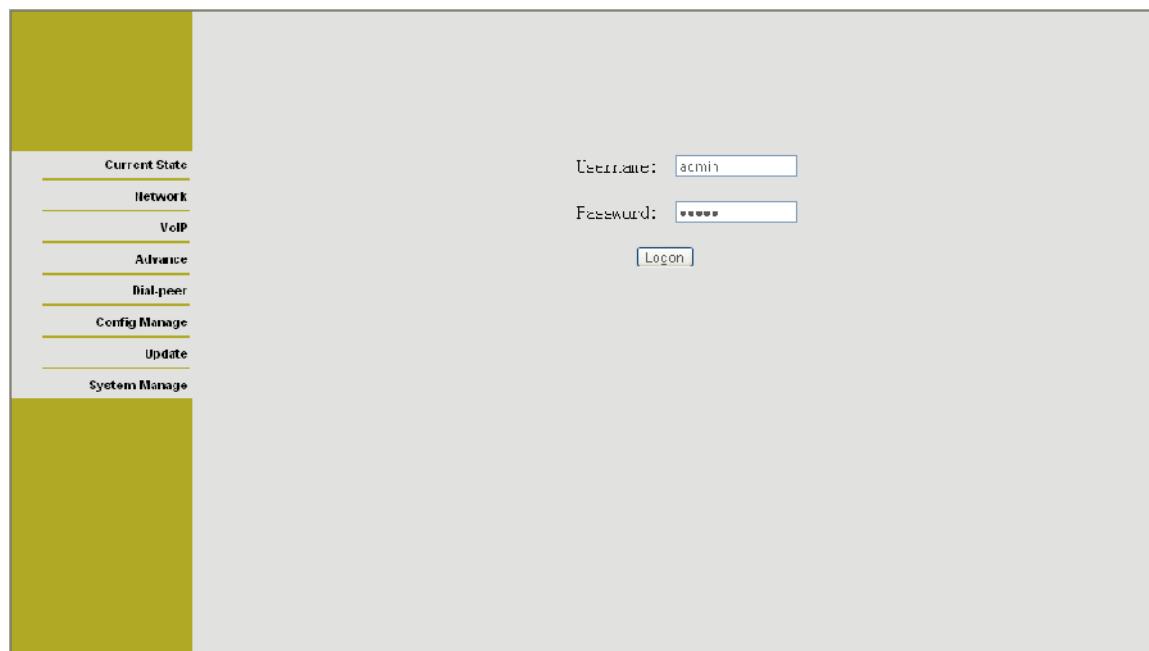
## 2 Web Configuration

### 2.1 Access Web setting page

Enter AT530 IP address in the web browser and press ENTER to go to the log on page, and key in the username and password to access AT530 setting page.

Default username and password is:

<b>Administrator:</b>	Username: <b>admin</b>	password: <b>admin</b>
<b>User:</b>	Username: <b>guest</b>	Username: <b>guest</b>



## 2.2 Current state

# IP Phone

Running Status

**Network**

<b>WAN</b>	Connect Mode	Static	MAC Address	00:09:45:52:a1:c8
<b>LAN</b>	IP Address	192.168.1.32	Gateway	192.168.1.254
<b>LAN</b>	IP Address	192.168.10.1	DHCP Server	ON

**VoIP**

<b>Default Protocol</b> : SIP				
<b>SIP</b>	Register Server	59.188.21.238	Proxy Server	59.188.21.238
<b>SIP</b>	Register	ON	State	Registered
<b>SIP</b>	SIP Stun	OFF		
<b>IAX2</b>	IAX2 server		Register	OFF
<b>IAX2</b>	State	Unregistered		

**Phone Number**

<b>Public SIP</b>	111
<b>Private SIP</b>	
<b>IAX2</b>	

Version: VOIP PHONE v1.0 Nov 16 2006 17:26:52

This page shows AT530's running state.

**Network** shows the WAN and LAN port connecting state and current settings.

**VoIP** part show the working state of VoIP, you can see whether AT530 has registered the public sip server

**Phone Number** public sip and private sip phone numbers.

## 2.3 Network

### 2.3.1 Wan Config

**WAN Configuration**

Active IP	Current Netmask	MAC Address	Current Gateway
192.168.1.35	255.255.255.0	00:01:02:03:04:05	192.168.1.1

Mac Authenticating Code	
-------------------------	--

<input type="checkbox"/> VLAN Enable	
--------------------------------------	--

<input type="radio"/> Static	<input checked="" type="radio"/> DHCP	<input type="radio"/> PPPoE
------------------------------	---------------------------------------	-----------------------------

Static	IP Address	192.168.1.179	Netmask	255.255.255.0
	Gateway	192.168.1.1		
DHIS	Primary DNS	202.96.134.133	Alternate DNS	202.96.128.68
	DNS Domain		Auto DNS	<input type="checkbox"/>

PPPoE Server	ANY
Username	user123
Password	*****
Fixed IP	

WAN port network setting page.

Support static IP, dynamic obtain IP and PPPoE.

VLAN Enable: Enable Vlan

➤ Configure Static IP:

---Enable *Static*;

---Set AT530's IP address in the *IP Address*;

---Set netmask in the *Netmask* field;

---Set router IP address in the *Gateway*;

---DNS Domain:

---Set local DNS server in the *Preferred DNS* and the *Alternate DNS*

---Auto DNS  DNS select it to get the DNS address automatically

➤ Configure to dynamic obtain IP

---Enable *DHCP*;

If there is DHCP server in your local network, AT530 will automatically obtain WAN port network information from your DHCP server.

➤ Configure PPPoE:

---Enable *PPPoE*

---*PPPoE server*: Enter "ANY" if no specified from your ITSP.

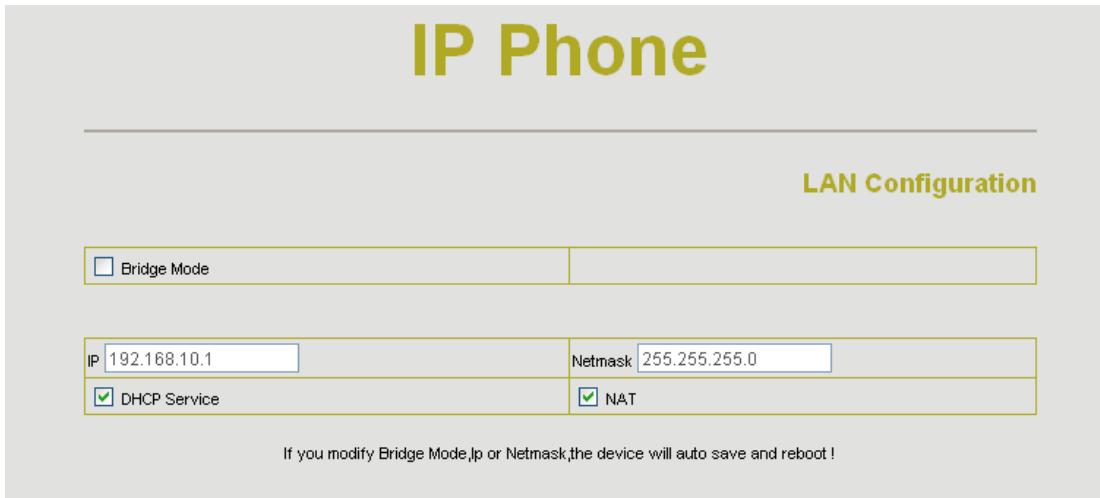
---Enter PPPoE username and pin in the *username* and *password*.

---Fixed IP: use the fixed IP address

AT530 will automatically obtain WAN port network information from your ITSP if PPPoE setting and the setup are correct.

Notice: If user accesses the IP phone through WAN port. He/She should use the new IP address to access the IP phone when the WAN port address was changed.

### 2.3.2 LAN Config



**Bridge Mode:** Enable this option to switch to bridge mode. IP phone won't assign IP for its LAN port in bridge mode and its LAN and WAN port will be in the same network. (This setting won't take effect unless you save the config and reboot the device)

**IP Netmask:** Set the IP and Netmask for the LAN

**DHCP Server:** Enable DHCP service in LAN port

**NAT:** Enable NAT.

## 2.4 VoIP SIP Config

### 2.4.1 SIP config

**IP Phone**

---

**SIP[ Registered ] Configuration**

Register Server Addr	192.168.1.230	Proxy Server Addr	
Register Server Port	5060	Proxy Server Port	
Register Username	7888	Proxy Username	
Register Password	****	Proxy Password	
Domain Realm		Local SIP Port	5060
Phone Number	7888	Register Expire Time	60 seconds
Display Name	7888	User Agent	Voip Phone 1.0
Encrypt Key		Server Type	common
DTMF Mode	DTMF_RELAY	RFC Protocol Edition	RFC3261
Detect Interval Time	60 seconds	Transport Protocol	UDP
<input checked="" type="checkbox"/> Enable Register			

**Apply**

Setting page of public SIP server:

**Register Server Addr:** Register address of public SIP server

**Register Server Port:** Register port of public SIP server **default port is 5060**

**Register Username:** Username of your SIP account (Always the same as the phone number)

**Register Password:** Password of your SIP account.

**Proxy Server Addr:** IP address of proxy SIP server (SIP provider always use the same IP for register server and proxy server, in this case you don't need to configure the proxy server information. )

**Proxy Server Port:** Signal port of SIP proxy

**Proxy Username:** proxy server username

**Proxy Password:** proxy server password

**Domain Realm:** SIP domain, enter the sip domain if any, otherwise AT530 will use the proxy server address as sip domain.

**Local SIP port:** Local SIP register port, default 5060

**Phone Number:** Phone number of your SIP account

**Display name:** config the display name , it can be displayed at the callee's side . only letter and number input is allowed here

**Register Expire Time:** register expire time, default is 600 seconds. AT530 will auto configure this expire time to the server recommended setting if it is different from the SIP server.

**Detect Interval Time:** Co-work with the *Auto Detect Server*, if *Auto Detect Server* is enable, AT530 will periodically detect if the SIP server is available according this setting.

**User Agent:**

**Encrypt Key:** The particular service system decrypts of the key , matching with the server Type usage, the key provide by the particular service system supplier, default is empty

**Server Type**: The particular service system supplier carries out the sign and speeches to encrypt, default is common

**DTMF Mode**: DTMF signal sending mode: support RFC2833, DTMF\_RELAY (inband audio) and SIP info

**RFC Protocol Edition**: Current AT530 SIP version. Set to RFC 2543 if the gate need to communicate to devices (such as CISCO5300) using the SIP 1.0. Default is RFC 3261.

**Enable Register**: Enable/Disable SIP register. AT530 won't sent register info to SIP server if disable register.

**Transport Protocol**: config the transfer protocol, TCP or UDP.

#### 2.4.2 Iax2 Config

## IP Phone

### IAX[Registered] Configuration

IAX Server Addr	59.188.21.238
IAX Server Port	4569
Account Name	222
Account Password	***
Phone Number	222
Local Port	4569
Voice mail number	0
Voice mail text	mail
Echo Test number	1
Echo Test text	echo
Refresh Time	60 Seconds
<input checked="" type="checkbox"/> Enable Register	<input type="checkbox"/> Enable G.729
<input checked="" type="checkbox"/> IAX(Default Protocol)	

Setting page of public IAX server:

**IAX Server Addr**: Register address of public IAX server

**IAX Server Port**: Register port of public IAX server default port is 4569

**Account Name**: Username of your SIP account (Always the same as the phone number)

**Account Password**: Password of your IAX account.

**Local port**: Signal port of local, default port is 4569

**Phone Number**: Phone number of your IAX account

**Voice mail number**: If the IAX support voice mail, but your username of the voice mail is letters which you can not input with the ATA , then you use the number to stand for your username

**Voice mail text**: if IAX support voice mail, config the domain name of your mail box here.

**Echo test number**: If the platform support echo test , and the number is test form , the config the test number to replace the text format The echo test is to test the working status of terminals and platform

**Echo test text**: echo test number in text format

**Refresh time**: IAX refresh time

**Enable Register:** enable or disable register

**IAX(Default Protocol):** Set IAX 2 as the default protocol , if not the system will choose SIP as default

**Enable G.729:** Using G.729 speech coding mandatory consultations

## 2.5 Advance

### 2.5.1 DHCP Server

**DHCP Service**

<input checked="" type="checkbox"/> DNS Relay						
Apply						
Name	Start IP	End IP	Lease Time	Netmask	Gateway	DNS
Ian2005	192.168.10.2	192.168.10.50	1440	255.255.255.0	192.168.10.1	192.168.10.1

Lease Table Name	<input type="text"/>	Lease Time	<input type="text"/> minute	
Start IP	<input type="text"/>	End IP	<input type="text"/>	
Netmask	<input type="text"/>	Gateway	<input type="text"/>	
DNS	<input type="text"/>			
Lease Table Name	Ian2005 <input type="button" value="▼"/>			<input type="button" value="Delete"/>

DHCP server manage page.

User may trace and modify DHCP server information in this page.

**DNS Relay:** enable DNS relay function.

User may use below setting to add a new lease table.

**Lease Table Name:** Lease table name.

**Lease Time:** DHCP server lease time.

**Start IP:** Start IP of lease table.

**End IP:** End IP of lease table. Network device connecting to the AT530 LAN port can dynamic obtain the IP in the range between start IP and end IP.

**Netmask:** Netmask of lease table.

**Gateway:** Default gateway of lease table

**DNS:** default DNS server of lease table.

Notice: This setting won't take effect unless you save the config and reboot the device

## 2.5.2 NAT

# IP Phone

---

**NAT Configuration**

<input checked="" type="checkbox"/> IPSec ALG	<input checked="" type="checkbox"/> FTP ALG
<input checked="" type="checkbox"/> PPTP ALG	

**Apply**

---

<b>Inside IP</b>	<b>Inside TCP Port</b>	<b>Outside TCP Port</b>
<b>Inside IP</b>	<b>Inside UDP Port</b>	<b>Outside UDP Port</b>

---

<b>Transfer Type</b>	<b>TCP</b> <input type="button" value="▼"/>	<b>Outside Port</b>	
<b>Inside IP</b>	<input type="text"/>	<b>Inside Port</b>	<input type="text"/>

**Add** **Delete**

---

**DMZ Table**

<b>Outside IP</b>		<b>Inside IP</b>	
<b>Outside IP</b>	<input type="text"/>	<b>Inside IP</b>	<input type="text"/> <b>Add</b>
<b>Outside IP</b>	<input type="button" value="▼"/>		<b>Delete</b>

Advance NAT setting. Maximum 10 items for TCP and UDP port mapping.

**IPSec ALG:** Enable/Disable IPSec ALG;

**FTP ALG:** Enable/Disable FTP ALG;

**PPTP ALG:** Enable/Disable PPTP ALG;

**Transfer Type:** Transfer type using port mapping.

**Inside IP:** LAN device IP for port mapping.

**Inside Port:** LAN device port for port mapping.

**Outside Port:** WAN port for port mapping.

Click **Add** to add new port mapping item and **Delete** to delete current port mapping item.

### 2.5.3 Net Service

Net Service

HTTP Port	80	Telnet Port	23
RTP Initial Port	10000	RTP Port Quantity	200

If modify HTTP or Telnet port, you'd better set it more than 1024, then save and restart.

DHCP Lease Table

Leased IP Address	Client Hardware Address
192.168.10.4	00-09-45-52-06-3f
192.168.10.3	00-09-45-63-75-98
192.168.10.2	00-0f-1f-a0-26-87

**HTTP Port:** configure HTTP transfer port, default is 80. User may change this port to enhance system's security. When this port is changed, please use <http://xxx.xxx.xxx.xxx:xxxx/> to reconnect.

**Telnet Port:** configure telnet transfer port, default is 23.

**RTP Initial Port:** RTP initial port.

**RTP Port Quantity:** Maximum RTP port quantity, default is 200

**Notice:**

Settings in this page won't take effect unless save and reboot the device.

If you need to change telnet port or HTTP port, please use the port greater than 1024, because ports under 1024 is system remain ports.

HTTP service if HTTP is set to 0.

## 2.5.4 Firewall settings

**Firewall Configuration**

<input type="checkbox"/> in_access enable	<input type="checkbox"/> out_access enable
<input type="button" value="Apply"/>	

**Firewall Input Rule Table**

Index	Deny/Permit	Protocol	Src Addr	Src Mask	Des Addr	Des Mask	Range	Port
-------	-------------	----------	----------	----------	----------	----------	-------	------

**Firewall Output Rule Table**

Index	Deny/Permit	Protocol	Src Addr	Src Mask	Des Addr	Des Mask	Range	Port										
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Input/Output <input type="button" value="Input"/></td> <td style="width: 50%; padding: 5px;">Deny/Permit <input type="button" value="Deny"/></td> </tr> <tr> <td>Protocol Type <input type="button" value="UDP"/></td> <td>Port Range <input type="button" value="more than"/></td> </tr> <tr> <td>Src Addr <input type="text"/></td> <td>Des Addr <input type="text"/></td> </tr> <tr> <td>Src Mask <input type="text"/></td> <td>Des Mask <input type="text"/></td> </tr> </table> <p style="text-align: center;"><input type="button" value="Add"/></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%; padding: 5px;">Input/Output <input type="button" value="Input"/></td> <td style="width: 50%; padding: 5px;">Index to be deleted <input type="text"/></td> </tr> </table> <p style="text-align: center;"><input type="button" value="Delete"/></p>									Input/Output <input type="button" value="Input"/>	Deny/Permit <input type="button" value="Deny"/>	Protocol Type <input type="button" value="UDP"/>	Port Range <input type="button" value="more than"/>	Src Addr <input type="text"/>	Des Addr <input type="text"/>	Src Mask <input type="text"/>	Des Mask <input type="text"/>	Input/Output <input type="button" value="Input"/>	Index to be deleted <input type="text"/>
Input/Output <input type="button" value="Input"/>	Deny/Permit <input type="button" value="Deny"/>																	
Protocol Type <input type="button" value="UDP"/>	Port Range <input type="button" value="more than"/>																	
Src Addr <input type="text"/>	Des Addr <input type="text"/>																	
Src Mask <input type="text"/>	Des Mask <input type="text"/>																	
Input/Output <input type="button" value="Input"/>	Index to be deleted <input type="text"/>																	

Firewall setting page. User may set up firewall to prevent unauthorized Internet users from accessing private networks connected to the Internet (input rule), or prevent unauthorized private network devices to access the internet.

Access list support two type limits: input\_access limit or output\_access limit. Each type support 10 items maximum.

AT530 firewall filter is base WAN port. So the source address or input destination address should be WAN port IP address.

Configuration:

**in\_access enable** enable in\_access rule

**out\_access enable** enable out\_access rule

**Input/Output:** specify current adding rule is input rule or output rule.

**Deny/Permit:** specify current adding rule is deny rule or permit rule.

**Protocol Type:** protocol using in this rule: TCP/IP/ICMP/UDP.

**Port Range:** port range if this rule

**Src Addr:** source address. Can be single IP address or network address.

**Dest Addr:** destination address. Can be IP address or network address.

**Src Mask:** source address mask. Indicate the source is dedicate IP if set to 255.255.255.255. Otherwise is network ID

**Des Mask:** Destination address mask. Indicate the source is dedicate IP if set to 255.255.255.255. Otherwise is network ID

## 2.5.5 QoS settings

**QoS Configuration**

QoS Configuration			
<input type="checkbox"/> VLAN Enable			
<input checked="" type="checkbox"/> VLAN ID Check Enable	Voice/Data VLAN differentiated	Undifferentiated	<input type="button" value="▼"/>
<input type="checkbox"/> DiffServ Enable	DiffServ Value	0x b8	
Voice VLAN ID	256 (0 - 4095)	Data VLAN ID	254 (0 - 4095)
Voice 802.1P Priority	0 (0 - 7)	Data 802.1P Priority	0 (0 - 7)
<input type="button" value="Submit"/>			

AT530 IP phone implement QoS based on 802.1p, The QoS is used to mark the network communication priority in the data link/MAC sub-layer. AT530 will sorted the packets using the QoS and sends it to the destination.

1. Voice 802.1p Priority --- Configure the priority of the voice packets in 802.1p protocol.
2. VLAN Enable --- Disable/Enable VLAN function
3. Voice VLAN ID --- configure the Voice/signaling VLAN ID
4. DiffServ Enable --- Disable/Enable Diffserv service
5. DiffServ Value --- Configure Diffserv parameter. The value range : value range 0x28,0x30,0x38,0x48,0x50,0x58,0x68,0x70,0x78,0x88,0x90,0x98,0xb8.default is 0xb8 ,0xb8 stands for best fast transmission; 28-30 is guarantee for the transmission priority for the 1st rank , 48-58 is guarantee for the transmission priority for the 2nd rank, 68-78 is guarantee for the transmission priority for the 3rd rank, 88-98 is guarantee for the transmission priority for the 4th rank.
6. Data VLAN ID--- Assign VLAN id for data stream.
7. Data 802.1P Priority --- Configure the priority of the data packets (non-voice/signaling data) in 802.1p protocol.
8. Data/Voice DiffServ differentiated --- undifferentiated for Date and voice VLAN is not distinction VLAN tag, Tag differentiated for Date and Voice VLAN is distinction VLAN tag, Date untagged for Date VLAN is distinction VLAN tag

Please refer to [VLAN implement](#) for detail

## 2.5.6 Advance SIP settings

Advance SIP Configuration			
Private[ Unregistered ]			
STUN NAT Transverse[FALSE]			
STUN Server Addr		STUN Server Port	3478
Private Register		Private Proxy	
Register Port	5060	Proxy Port	
Register Username		Proxy Username	
Register Password		Proxy Password	
Private Domain		Expire Time	60 (seconds)
Private Number		STUN Effect Time	50 (seconds)
Private User Agent	Voip Phone 1.0	Private Server Type	common
Private Display Name		RFC Privacy Edition	NONE
Transport Protocol	UDP	<input type="checkbox"/> Enable Session Timer <input checked="" type="checkbox"/> Enable Via rport <input type="checkbox"/> Signal Encode <input type="checkbox"/> Enable PRACK <input checked="" type="checkbox"/> Enable Subscibe <input checked="" type="checkbox"/> Enable URI Convert <input type="checkbox"/> Enable Strict Proxy <input type="checkbox"/> Auto Detect Server	
		<input type="checkbox"/> Answer With Single Codec <input type="checkbox"/> Rtp Encode <input type="checkbox"/> Enable SIP Stun <input type="checkbox"/> Enable Keep Authentication <input type="checkbox"/> Enable Private Register <input checked="" type="checkbox"/> Enable Quote Name	

This page is used to set the private sip server, stun server, and back up sip server information.

**STUN Server setting:**

**STUN Server Addr:** configure stun server address;

**STUN Server Port:** configure stun server port default 3478

**STUN Effect Time:** stun detect NAT type circle, unit: minute.

**Enable SIP STUN:** enable/disable stun.

**Enable PRACK:** Whether to make gateway or IP phone support Prack function in SIP , we suggest you keeping default setting

**Enable Keep Authentication:** registering signal together with the authentication information. If enable it, the server will confirm the registering and send back the confirmation message directly instead of requesting the terminals to send authentication information if needed.

**Auto Detect Server:** Whether to enable the function of auto detecting the server. With this function your ATA and IP phone will send information to auto detect the server at every period of time. If find the server is not available it will try to register the server again.

**Enable Session Timer:** Whether to enable te RFC4028

**Signal Encode:** Wherther to enable the signal encrypt

**Rtp Encode:** Whether to enable the voice encrypt

**Enable Private Register:** Whether to enable the second SIP Server to register

Please refer to [SIP\\_Config](#) for the setting for how to set the public alter server.

User can register two sip servers: public sip server and private sip server.these two sip servers are independent from each other and running in the same time.

For how to configure private sip server. Please refer to [SIP\\_Config](#)

**Enable URI Convert:** transfer the # into %23 when sending URI

**Enable Strict Proxy:** compatible with special server ( when the message is returned , they use original address but not the address in via field)

**Enable Quote Name:** To work with the server , config here to use quotation mark to include the displayname

**Enable Subscribe:** subscribe the message such as other side's status or the voice mail after successful registration

## 2.5.7 Digital Map

The screenshot shows the 'Digital Map Configuration' and 'Digital Map Table' sections of the AT530 User Manual.

**Digital Map Configuration:**

- End with "#"
- Fixed Length
- Time out  (3--30)
- 

**Digital Map Table:**

**Rules:**

- 8[3-8]xxxxx
- 89xxx
- 6567
- 78xxxT2
- 5[3,7,9]xxxxx

<input type="text"/>	<input type="button" value="Add"/>
<input type="text" value="8[3-8]xxxxx"/>	<input type="button" value="Delete"/>

Digit map is a set of rules to determine when the user has finished dialing.

AT530 support below digital map:

Digital Map is based on some rules to judge when user end their dialing and send the number to the server. AT530 support following digital map:

---End With "#": Use # as the end of dialing.

---Fixed Length: When the length of the dialing match, the call will be sent.

---Timeout: Specify the timeout of the last dial digit. The call will be sent after timeout

---Prefix: User define digital map:

[ ] represents the range of digit, can be a range such as [1-4], or use comma such as [1,3,5], or use a list such as [234]

x represents any one digit between 0~9

Tn represents the last digit timeout. n represents the time from 0~9 second, it is necessary. Tn must be the last two digit in the entry. If Tn is not included in the entry, we use T0 as default, it means system will sent the number immediately if the number matches the entry.

Example:

[1-8]xxx All number from 1000 to 89999 will be sent immediately.

9xxxxxxxx 8 digits numbers begin with 9 will be sent immediately.

911 Number 911 will be sent will be immediately

99xT4      3 digits numbers begin with 99 with be sent after four seconds.

## 2.5.8 Call Service Settings

Call Service

Hotline	<input type="text"/>									
Call Forward	Off	<input type="button" value="▼"/>								
	Phone Number	<input type="text"/>	Addr	<input type="text"/>	Port	<input type="text" value="5060"/>				
<input type="checkbox"/> No Disturb	<input type="checkbox"/> Ban Outgoing									
<input checked="" type="checkbox"/> Enable Call Transfer	<input checked="" type="checkbox"/> Enable Call Waiting									
<input checked="" type="checkbox"/> Enable Three Way Call	<input checked="" type="checkbox"/> Accept Any Call									
<input type="checkbox"/> Auto Answer	<input type="checkbox"/> Enable Voice Record									
<input type="checkbox"/> User-Defined Voice	<input checked="" type="checkbox"/> Incoming Record Playing									
20	No Answer Time(seconds)	<input type="text"/> P2P IP Prefix			<input type="text"/>					
<input type="checkbox"/> Use Record Server	<input type="checkbox"/> Remote Record No			<input type="text"/>						
<input type="button" value="APPLY"/>										
<b>Black List</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="text"/></td> <td><input type="button" value="Add"/></td> <td><input type="button" value="▼"/></td> <td><input type="button" value="Delete"/></td> </tr> </table>							<input type="text"/>	<input type="button" value="Add"/>	<input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text"/>	<input type="button" value="Add"/>	<input type="button" value="▼"/>	<input type="button" value="Delete"/>							
<b>Limit List</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="text"/></td> <td><input type="button" value="Add"/></td> <td><input type="button" value="▼"/></td> <td><input type="button" value="Delete"/></td> </tr> </table>							<input type="text"/>	<input type="button" value="Add"/>	<input type="button" value="▼"/>	<input type="button" value="Delete"/>
<input type="text"/>	<input type="button" value="Add"/>	<input type="button" value="▼"/>	<input type="button" value="Delete"/>							

User configure the value add service such as hotline, call forward, call transfer, 3-way conference call .etc in this page

**Hotline:** configure hotline number. AT530 immediately dials this number after hook-off if it is set.

**Call Forward:** Please refer to [Value\\_add\\_service](#) for detail.

**No Disturb:** DND, do not disturb, enable this option to refuse any calls.

**Ban Outgoing:** Enable this to ban outgoing calls.

**Enable Call Transfer:** Please refer to [Value\\_add\\_service](#) for detail.

**Enable Three Way Call:** Please refer to [Value\\_add\\_service](#) for detail.

**Enable Call Waiting:** Enable/disable Call Waiting

**Accept Any Call:** If this option is disable, AT530 refuse the incoming call when the called number is different from AT530's phone number.

**No Answer Time:** no answer call forward time setting.

**Auto Answer:** Enable/disable auto answer function.

**Enable Voice Record:** Enable/disable answering machine function. Please refer to [Record Function](#) for detail.

**User-defined Voice:** Use customized greeting message.

**Incoming Record Playing:** simultaneously play the message when recording.

**P2P IP Prefix:** Config the point to point calling. For example , if you want to call IP 192.168.1.119 Just defin 192.168.1. here and you can dial #119 to make the point to point call with the IP phone of 192.168.1.119

**Use Record Server:** Config the supporting of server recording , transfer all the recording to

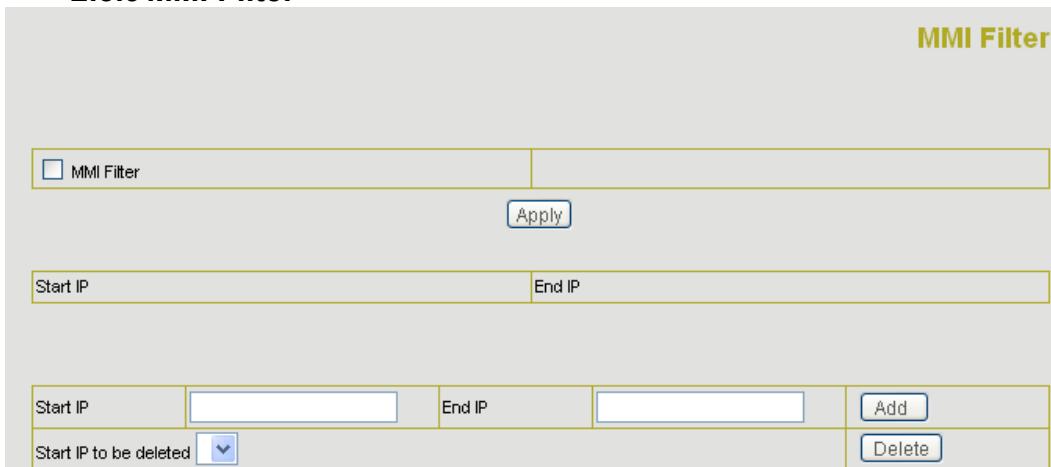
server.

**Remote Record No:** Config the recording number , if you upload your recording to this account , you can login this account to get your voice recording

**Black List:** incoming call in these phone numbers will be refused.

**Limit List:** outgoing calls with these phone numbers will be refused

## 2.5.9 MMI Filter



The interface is titled "MMI Filter". It contains a checkbox labeled "MMI Filter" and an "Apply" button. Below this is a row with "Start IP" and "End IP" input fields. At the bottom are two rows for adding and deleting IP ranges: "Start IP" and "End IP" with "Add" and "Delete" buttons, and "Start IP to be deleted" with a dropdown menu.

MMI filter is used to make access limit to AT530 IP phone.

When MMI filter is enable. Only IP address within the *start IP* and *end IP* can access AT530 IP phone.

## 2.5.10 Audio Settings



The interface is titled "IP Phone" and "Audio Settings". It contains a table with the following settings:

Coding Rule	g711Alaw64k	G729 Payload Length	20ms
Signal Standard	China	Ring Type	Type 1
Input Volume	9 (1-9)	Output Volume	9 (1-9)
Handfree Volume	4 (1-9)	Ring Volume	5 (1-9)
Dtmf Payload Type	101 (96-127)	Handdown Time	200 ms
<input type="checkbox"/> VAD		<input type="checkbox"/> Disable Handfree	

Below the table is an "Apply" button.

**CODEC:** select the prefer CODEC; support ulaw, alaw,G729 and G7231 5.3/6.3

**Signal Standard:** Signal standard for different area.

**Input Volume:** Handset in volume.

**Output Volume:** Handset out volume.

**Handfree Volume:** Hand free volume

**Handdown Time:** hand down detect time.

**G729 Payload Length:** G729 payload length

**VAD:** Enable/disable Voice Activity Detection, but G.711 not supports VAD

**Handdown Time:** The minimum response time of the flash hook , default is 200ms. if you press the hook for a shorter time than this setting, there will be no effect for your pressing

**Disable Handfree:** Disable the handsfree function , mainly used in call center where the telephonist use the RJ-9 headset and press the handsfree to hang up and pick up the phone

## 2.5.11 VPN

**IP Phone**

---

**VPN Tunnel**



VPN IP	0.0.0.0		
UDP Tunnel			
VPN Server Addr	0.0.0.0	VPN Server Port	80
Server Group ID	VPN	Server Area Code	12345
L2TP			
VPN Server Addr		VPN User Name	
VPN Password			

---

UDP Tunnel  L2TP       Enable VPN

this page is VPN setting page , the IP phone support the VPN with UDP and L2TP protocol .The parameters is as below

**VPN IP** After VPN registered successfully, VPN server will give an IP address to the terminal . If there is a IP address shown on terminal (except for 0.0.0.0) ,it means your VPN has registered

UDP Tunnel

**VPN Server Addr** register to the address of VPN server

**VPN Server Port** Register to the port of VPN server

**Server Group ID** the group ID of UDP VPN

**Server Area Code** the area code of VPN server

L2TP

**VPN Server Addr** register to the address of VPN server

**VPN User Name** L2TP VPN username

**VPN Password** L2TP VPN password

UDP Tunnel  L2TP       Enable VPN

**UDPTunnel:** use the UDP to visit VPN

**L2TP:** use the L2TP to visit VPN

**Enable VPN:** Enable the VPN server, you must choose UDP or L2TP type in advance

### 2.5.12 Memory Key

**IP Phone**

---

**Memory Key Setting**

<b>Memory 1</b>	<input type="text" value="123"/>	<b>Memory 2</b>	<input type="text"/>
<b>Memory 3</b>	<input type="text"/>	<b>Memory 4</b>	<input type="text"/>
<b>Memory 5</b>	<input type="text"/>	<b>Memory 6</b>	<input type="text"/>
<b>Memory 7</b>	<input type="text"/>	<b>Memory 8</b>	<input type="text"/>
<b>Memory 9</b>	<input type="text"/>		

the configuration of 9 speed call buttons

### 2.6 Dial-Peer

**Dial-Peer**

<b>Number</b>	<b>Call Mode</b>	<b>Destination</b>	<b>Port</b>	<b>Alias</b>	<b>Suffix</b>	<b>Del length</b>
2T	sip	255.255.255.255	5060	del	no suffix	1
3T	sip	0.0.0.0	5060	del	no suffix	1
123	sip	0.0.0.0	5060	all:8675583018049	no suffix	0
0T	sip	0.0.0.0	5060	rep:86	no suffix	1
179	sip	192.168.1.179	5060	no alias	no suffix	0

2T

Please refer to [How to use dial rule](#) for detail.

## 2.7 Config Manage

**Save Config:** save current settings.

**Clear Config:** restore to default settings.

**Backup Config:** Backup the config file, via point the right key of mouse-→ save target as....-→will pop a save window, then type the config file name in the File name(the file type is text file)

Notice: clear config in admin mode, all settings restores to factory default; clear config in guest modem, all settings except sip, advance sip restore to factory default.

## 2.8 Update

### 2.8.1 Web Update:

Update IP phone's settings or firmware. Firmware file is .z extension when configure file is .cfg extension, AT530 will auto select configure update or firmware update according the extension.

### 2.8.2 TFTP/FTP Update:

upload/download the configure file with FTP or TFTP server. or download firmware from FTP or TFTP server

**Back up** configure file to your FTP/TFTP server.

**FTP/TFTP Download**

Server	192.168.1.53
Username	edwin
Password	*****
File name	ATAconfigure.cfg
Type	Config file export
Protocol	FTP

configure use .cfg extension.

The Type includes two parts of config file export and config file import

Config file export:export the config file

Config file import:import the config file

### 2.8.3 Auto Provisioning:

AT530 IP phone support FTP and TFTP auto update. The gateway will auto obtain the configure file from your update server if configured. To obtain the original configure file, you can use the FTP/TFTP back up as describe above. Configure file using module structure, user may remain the concerned modules and remove other modules. Put the configure file in the root directory of update serve when finish editing.

# IP Phone

---

**Auto Provisioning**

Current Version	2.0002
Server Address	<input type="text" value="0.0.0.0"/>
Username	<input type="text" value="user"/>
Password	<input type="text" value="*****"/>
Config File Name	<input type="text"/>
Config Encrypt Key	<input type="text"/>
Protocol Type	FTP <input type="button" value="▼"/>
Update Interval Time	1 <input type="text"/> Hour
Update Mode	Disable <input type="button" value="▼"/>

**Current Version:** the system will display the current version number

**Server Address:** FTP/TFTP server address

**Username:** FTP server user name

**Password:** FTP server password

**Config File Name:** The name of configuration file

**Config Encrypt Key:** The encrypt key of confirmation file

**Protocol Type:** The protocol type that used for upgrading

**Update Interval Time:** The interval time that the terminals search for new configuration file.

**Update Mode:** auto provision mode; Disable: not auto update  Update after reboot: auto update after reboot  Update at time interval: auto update after a certain time

Configure file version was in the <<VOIP CONFIG FILE>> and <GLOBLE CONFIG MODULE> ConfFile Version

For instance:

Gateway original version is:

<<VOIP CONFIG FILE>>Version:1.0000

<GLOBLE CONFIG MODULE> ConfFile Version

User may edit the configure file version to:

<<VOIP CONFIG FILE>>Version:1.0007

<GLOBLE CONFIG MODULE> ConfFile Version

## 2.9 System Manage

### 2.9.1 Account Manage

**Account Configuration**

Keypad password	***
-----------------	-----

---

User Name	User Level
admin	Root
guest	General

Set web access account or keypad password of AT530.

### 2.9.2 Phone Book:

User may set contacts in this page, and the contacts will be saved in the memory. Then using the Pbook, Vol+,Vol-,Menu/OK and Exit keys to choose your friend in the contacts and then press # to call out.

### 2.9.3 Syslog Config:

**IP Phone**

---

**Syslog Configuration**

Server Address	0.0.0.0
Server Port	514
MGR Log Level	None <input type="button" value="▼"/>
SIP Log Level	None <input type="button" value="▼"/>
IAX2 Log Level	None <input type="button" value="▼"/>
<input type="checkbox"/> Enable Syslog	

**Server IP:** set the syslog server address

**Server Port:** set the syslog server port

**MGR Log Level:** set the MGR log level

**SIP Log Level:** set the SIP log level

**IAX2 Log Level:** set the IAX2 log level

Please click “apply” after setting

#### 2.9.4 Time Set:

**IP Phone**

---

**Time Configuration**

SNTP Timeset	
<b>server</b>	<input type="text" value="207.46.130.100"/>
<b>timezone</b>	<input type="text" value="(GMT+08:00)Beijing, Hong Kong, Urumqi"/> <input type="button" value="▼"/>
<b>timeout</b>	<input type="text" value="60"/> (seconds)
<input checked="" type="checkbox"/> select sntp	<input type="checkbox"/> Daylight
<input type="button" value="Apply"/>	

Manual Timeset	
<b>year</b>	<input type="text"/>
<b>months</b>	<input type="text"/>
<b>day</b>	<input type="text"/>
<b>hour</b>	<input type="text"/>
<b>minute</b>	<input type="text"/>
<input type="button" value="Apply"/>	

**Server:** type the ip address of time server

**Timezone:** select correct time zone in list box

**Timeout:** longest response time for SNTP

**Manual Timeset:** The time setting

**Daylight:** Daylight saving time

#### 2.9.5 Reboot:

Reboot IP phone, some setting needs to reboot to make it works. Please always save config before reboot, otherwise the setting will return to previous setting.

### 3 Use keypad configure AT530 IP phone

#### 3.1 Keypad function

User can configure AT530 through its keypad. List below is the keypad function

Keypad	Mode	Function/Display
Idle mode	----	show current time
Sysinfo	Idle mode	circularly show phone number,wan ip, gateway info
Menu/OK	Idle mode	enter config mode, default password 123
	config mode	confirm or enter sub-menu
Exit	config mode	exit
Up	Calling mode	volume up (Max:9)
	config mode	Page up
Down	Calling mode	volume down (Min:1)
	config mode	Page down
Del	Calling mode	Delete digits
	config mode	Delete digits
Mute	Calling mode	Mute
Out call	Idle mode	Outgoing call menu
In call	Idle mode	Incoming call menu
Record	Idle mode	Enter record menu, usage refer <a href="#">FAQ</a>
Pbook	Idle mode	Enter Phone book set up
Handfree	Calling mode	Handfree
0~9	Calling mode	Digits 0~9
	config mode	Hit quickly to switch between numeric or alphabetic
*	Calling mode	Use in 3-way conference call.
	config mode	Use as “.” In the ip address setting
#	Calling mode	Use as end key of dialing or the dial number
Hold	Calling mode	Hold, detail refer <a href="#">value add service</a>
FWD	Calling mode	Transfer, detail refer <a href="#">value add service</a>
Redial	Calling mode	Redial key
Send	Calling mode	call key
No.1~No.9	Idle mode	Speed dial key

### 3.2 Keypad Menu

User may use **SET**, **Menu/ok**, **Exit**, **Vol+**, **Vol-** to config AT530 detail setting. Press **Menu/ok** to enter config mode, and the default password is 123.

Below list the keypad menu of AT530

AT530 Keypad Menu			
Level 1	Level 2	Level 3	Level 4
Network	LAN	Bridge Mode	
		IP	
		Netmask	
		DHCP Server	
		NAT	Switch
			FTPAlg
			IPSec alg
			PPTPAlg
	WAN	Status	
		Static Net	1. IP
			2. NetMask
			3. Gateway
			4. DNS
			5. DNS2
		PPPoE	User name
			Password
	VLAN	QoS	
		Enable	
		Date Vlan ID	
		Voice Vlan ID	
Call Feature	Phone-number	□	
		Public SIP	
		Private SIP	
	Limit-List	Current	
		ADD	
		DEL	
	Black-List	Current	
		ADD	
		DEL	
	FastCall		
	Three Call		
	Call-Transfer		
	Call-Waiting		

	Call-Forward	Condition	SIP	Transfer Num					
				Transfer IP					
				Port					
			End With #						
	Dial-Rule		Fixed Length	Switch					
				Length					
	SIP	Reg Status	Public Reg						
			Private Reg						
		Detect-server							
		Dtmf-mode							
		Interval-time							
		Swap-server							
		RFC-version							
		Signal-Port							
		Stun	Switch						
			Addr						
			Port						
			Expire Time						
DSP	Codec								
	Handdown-time								
	Dtmf-Volume								
	Input-volume								
	Output-Volume								
Other Setting	Syslog	Switch							
		Server-IP							
		Server-Port							
4. System	1. Save								
	2. Reboot								
	3. Set Default								

## 4 Telnet Console

### 4.1 Introduce

#### 4.1.1 Basic structure

User may use telnet command to access and manage IP phone.

AT530 adopts tree structure for telnet. Every node contains its sub-nodes or local command. User can type “help” or “?” whenever to see sub-nodes and all local command under current node.

Besides local command, there are some global commands can be used in each node.

#### 4.1.2 Basic command

**Logout:** exit telnet mode.

**Write:** save current settings.

Type sub-nodes name in current node to switch to sub-node.

Type “!” or “exit” in current node to return to parent-node.

Type “help” or “?” can see all sub-nodes and all local command under current node, every help item has comments such as <command> or <node> to distinguish sub-nodes and local command. Type “help” or “?” in command can see all parameters using in this command.

When typing node name or command, user no need to key the full name, use TAB button will make it more efficient.

There are two types in command parameters: optional and required. “required” parameter use “-” as prefix and “optional” use “\_” as prefix. User may type “-” or “\_” then press TAB button for complementarily.

## 4.2 Global Command

Global command is available under all nodes, AT530 support following commands:

Command	Function	Example
chinese	Set to Chinese UI	#chinese
clear	Clear telnet screen	#clear
english	Set to English UI	#english
exit	Return to parent-node	#exit
help	Show help info Show sub-nodes and local command	1#help ping 2#help
history	Show command history	#history
logout	Exit	#logout
ping	Ping command, use to check network,	#ping www.google.com
tree	Print tree structure of current command	#tree
who	Show current user	#who
write	Save setting to flash	#write

## 5 Tree Structure

### 5.1.1 account

path: <account>#  
 [stop]start Syslog ---syslog [no] start  
 Configure Syslog server address and port ---syslog server –ip x.x.x.x \_port xxx  
**Example:** #<config-account-syslog>#server –ip 202.112.20.10  
 Show syslog settings ---syslog show  
 Show all account settings ---show

### 5.1.2 config

#### ➤ accesslist firewall config

path: <config-accesslist>#  
 add firewall rule ---entry –I/O xxx –P/D xxx –proto xxx –srcaddr x.x.x.x –srcmask x.x.x.x–desaddr x.x.x.x –desmask x.x.x.x –portrange xxx –portnum xxx  
**Example:** <config-accesslist>#entry –I/O input –P/D deny –proto udp –straddr 202.112.10.1 –srcmask 255.255.255.0 –desaddr 210.25.132.1 –desmask 255.255.255.0 –portrange neq –portnum 5060  
 delete firewall rule ---no entry –I/O xxx –index xxx  
**Example:** <config-accesslist>#no entry –I/O input –index 1  
 Show firewall settings ---show  
 [disable] enable input filter ---[no]in-access  
 [disable] enable output filter ---[no]out-access

#### ➤ DHCP

path: <config-dhcp>#  
 add DHCP rule ---entry –name xxx –startip x.x.x.x –endip x.x.x.x –netmask x.x.x.x –gateway x.x.x.x –dnsserver x.x.x.x \_time xxx  
**Example:** <config-dhcp>#entry –name lan2004 –startip 192.168.1.2 –endip 192.168.1.254 –netmask 255.255.255.0 –gateway 192.168.1.1 –dnsserver 192.168.10.18  
 delete DHCP rule ---no entry –name xxx  
**Example:** <config-dhcp>#no entry –name lan2004  
 Show DHCP settings ---show  
 [disable]enable DNS-relay ---[no]dns-relay

#### ➤ dialrule

path: <config-dialrule>#  
 [disable] enable End with # ---[no]endchar  
 Set end with fix length ---fixlen xxx  
 Disable end with fix length ---no fixlen  
 Set timeout to send ---timeout-send xxx  
 Disable timeout to send ---no timeout-send  
 Add digital map ---entry –prefix xxx –length xxx  
**Example:** <config-dialrule>#entry –prefix 010 –length 11  
 Delete digital map rule ---no entry –prefix xxx  
**Example:** <config-dialrule>#no entry –prefix 010  
 Show current digital map ---show

#### ➤ LAN interface settings

path: <config-interface-fastethernet-lan>#  
 [disable]enable bridge mode ---[no]bridgemode  
 [disable]enable DHCP service ---[no]dhcp-server  
 [disable]enable NAT ---[no]nat

Show current DHCP rules     ---dhcpshow

Show LAN port IP address     ---ipshow

Show NAT info     ---natshow

Change LAN port IP address     ---ip --addr x.x.x.x --mask x.x.x.x

**Example:**<config-interface-fastethernet-lan>#ip --addr 192.168.1.10 --mask 255.255.255.0

#### ➤ WAN interface settings

path:    <config-interface-fastethernet-wan>#

[disable]enable dhcp client     ---[no]dhcp

[disable]enable pppoe     ---[no]pppoe

[disable]enable QOS     ---[no]qos

Set default gateway IP     ---gateway x.x.x.x

Clear default gateway IP     ---no gateway

Set WAN port IP address     ---ip --address x.x.x.x --mask x.x.x.x

**Example:**<config-interface-fastethernet-wan>#ip --addr 202.112.241.100 --mask 255.255.255.0

You need to reconnect if the WAN port has been changed.

Show WAN port settings     ---show

#### ➤ MMI Filter

path:    <config-mmifilter>#

add filter rule     ---entry --start x.x.x.x --end x.x.x.x

**Example:**<config-mmifilter>#entry --start 202.112.20.1 --end 202.112.20.255

Delete filter rule     ---no entry --start x.x.x.x

**Example:**<config-mmifilter>#no entry --start 202.112.20.1

Show filter rule     ---show

[disable]enable MMI filter     ---[no]start-filter

#### ➤ NAT settings

path:    <config-nat>#

[disable]enable ftp alg     ---[no]ftpalg

[disable]enable ipsec alg     ---[no]ipsecalg

[disable]enable pptp alg     ---[no]pptpalg

Add TCP mapping rule     ---tcp-entry --ip x.x.x.x --lanport xxx --wanport xxx

**Example:**<config-nat>#tcp-entry --ip 192.168.1.5 --lanport 1720 --wanport 1000

Delete TCP mapping rule     ---no entry --ip x.x.x.x --lanport xxx --wanport xxx

**Example:**<config-nat>#no tcp-entry --ip 192.168.1.5 --lanport 5060 --wanport 1000

Add UDP mapping rule     ---udp-entry --ip x.x.x.x --lanport xxx --wanport xxx

Delete UDP mapping rule     ---no udp-entry --ip x.x.x.x --lanport xxx --wanport xxx

Show NAT info     ---show

#### ➤ NetService

path:    <config-netservice>#

Set DNS address     ---dns --ip x.x.x.x \_domain xxx

**Example:**<config-netservice>#dns --ip 202.112.10.36 \_domain voip.com

Set alternate DNS address     ---alterdns --ip x.x.x.x \_domain xxx

Set hostname     ---hostname xxx

Set http access port     ---http-port xxx

Show http access setting     ---http-port

Set telnet access port     ---telnet-port xxx

Show telnet access port     ---telnet-port

Set RTP initial port and quantity     ---media-port --startport xxx --number xxxx

**Example:**<config-netservice>#media-port --startport 10000 --number 200

Add route rule     ---route --gateway x.x.x.x --addr x.x.x.x --mask x.x.x.x

**Example:**ArchiPhone<config-netservice>#route --gateway 202.112.10.1 --addr 202.112.210.1 --mask 255.255.255.0

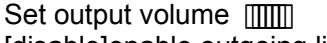
Delete route rule ---no route --gateway x.x.x.x --addr x.x.x.x --mask x.x.x.x  
 Show route info ---route  
 Show netservice info ---show

➤ Dial-peer settings

path: <config-pbook>#  
 [disable]enable calling through GK and proxy ---[no]enableGKandProxy  
 Add number-IP bond entry ---entry --number xxx --ip x.x.x.x --protocol xxx  
**Example:**<config-pbook>#entry --number 100 --ip 202.112.20.100 --protocol sip  
 Add number-IP bond and add prefix to the dial number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_add xxx  
**Example:**<config-pbook>#entry --number 100 --ip 202.112.20.100 --protocol sip \_add 123(dial 100 and will send 123100 according this rule)  
 Add number-IP bond and replace the destination with another number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_all xxx  
**Example:**<config-pbook>#entry --number 100 --ip 202.112.20.100 --protocol sip \_all 123( user dial 100 and gateway will sent 100 instead)  
 Add number-IP bond and delete the prefix of the destination number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_del xxx  
**Example:**<config-pbook>#entry --number 1234 --ip 202.112.20.100 --protocol sip \_del 2 (dial 1234 will send 34 instead)  
 Add number-IP bond and replace the prefix with another number  
 ---entry --number xxx --ip x.x.x.x --protocol xxx \_rep xxx \_length xxx  
**Example:**<config-pbook>#entry --number 1234 --ip 202.112.20.100 --protocol sip \_rep 567 \_length 2(dial 1234 will send 56734)

Delete dial-peer entry ---no entry --number xxx  
 Show current dial-peer rules ---show  
 Set default voip protocol ---default-protocol xxx

➤ Port settings

path: <config-port># <config-port X>#  
 set accecp relay mode ---accept-relay xxx  
 set callerid mode ---callerid xxx  
 disable callerid ---no callerid  
 config call forward ---callforward --conditon xxx --number xxx --ip xxx --port xxx --protocol xxx  
**Example:**<config-port 0>#callforward --condition busy --number 100 --ip 202.112.10.100 -port 5060 --protocol sip  
 Disable call forward ---no callforward  
 [disable]enable call transfer ---[no]calltransfer  
 [disable]enable call waiting ---[no]callwaiting  
 Set prefer codec ---codec xxx  
 Set DTMF gain ---dtmfvolume xxx  
 Set black list ---in-limit xxx  
 Show black list ---in-limit  
 Set input volume  ---input xxx  
 Set outgoing limit list ---out-limit xxx  
 Show outgoing limit list ---out-limit  
 Set output volume  ---output xxx  
 [disable]enable outgoing limit ---[no]shutdown out  
 [disable]enable black list ---[no]shutdown in  
 [disable]enable outgoing limit and black list ---[no]shutdown  
 [disable]enable 3-way conference ---[no]threeltalk  
 Show port settings ---show

➤ PPPoE settings

path: <config-pppoe>#  
PPPoE account settings ---auth -user xxx -password xxx  
**Example:**<config-pppoe>#auth -user aaa -password 123456  
[enable]nable service settings ---[no]service xxx  
Show pppoe settings ---show  
➤ QOS settings  
path: <config-qos>#  
[delete]add QoS table entry --- [no]entry -addr x.x.x.x -mask x.x.x.x  
**Example:**<config-qos>#entry -addr 202.112.10.1 -mask 255.255.255.0  
[enable]nable include QOS table ---[no]include  
Show QoS settings ---show  
➤ SIP settings  
path: <config-sip>#  
[enable]nable registration ---[no] register  
[enable]nable auto detect server ---[no] detect-server  
Set sip domain ---default-domain xxx  
Set DTMF mode ---dtmf-mode xxx  
Set auto detect interval time ---interval-time xxx  
Set RFC edition ---rfc-version xxx  
[enable]nable auto swap server --- [no]swap-server  
Set sip account ---number-password -number xxx -password xxx  
Set local SIP signal port --- signalport xxx  
Set proxy server ---server proxy -ip x.x.x.x \_port xxx \_user xxx \_password xxx  
**Example:**<config-sip-server># proxy ip 210.25.23.22 \_port 5060 \_user aaa \_password 123456  
Set register server info ---server register -ip x.x.x.x \_port xxx \_user xxx \_password xxx  
Set alter proxy info ---alter-server proxy -ip x.x.x.x \_port xxx \_user xxx \_password xxx  
Set alter server info ---alter-server register -ip x.x.x.x \_port xxx \_user xxx \_password xxx  
[enable]nable stun server ---stun [no]enable  
Set stun detecting interval time ---stun interval-time xxx  
Set stun server ip and port ---stun -ip x.x.x.x -port xxx  
Show current sip info ---show  
➤ User management  
path: <config-user>#  
Change user right. ---access -user xxx -access xxx  
**Example:**<config-user>#access -user aaa -access 7  
Change user password ---password -user xxx  
Add new user ---entry -user xxx -access xxx  
**Example:**<config-user>#entry -user abc -access 7  
Delete user entry ---no entry -user xxx  
Show current sip info ---show

### 5.1.3 Debug (Level 0~7)

path: <debug>#  
show debug setting ---show  
[disable]enable debug all modules ---[no] all xxx  
[disable]enable debug app module ---[no] app xxx  
[disable]enable debug cdr module ---[no] cdr xxx  
[disable]enable debug sip module ---[no] sip xxx  
[disable]enable debug tel module ---[no] tel xxx  
[disable]enable debug dsp module ---[no] dsp xxx

### 5.1.4 download configure to flash

usage: #download tftp –ip x.x.x.x –file xxx  
#download ftp –user xxx –password xxx –ip x.x.x.x –file xxx  
**Example:** #download ftp –user abc –password 123 –ip 202.112.20.15 –file AT530.cfg

### 5.1.5 password

usage: #password  
Enter new password:xxx  
Confirm new password:xxx

### 5.1.6 reload

usage: #reload  
Reboot system

### 5.1.7 show system running info

➤ accesslist  
path: <show>#  
show: accesslist (firewall) settings  
**Example:** #<show>#accesslist  
➤ basic  
path: <show>#  
show network status  
**Example:** #<show>#basic  
➤ call  
path: <show>#  
show current call info  
**Example:** #<show>#call active  
➤ capability  
path: <show>#  
show CODEC capability  
**Example:** #<show>#capability  
➤ debugging  
path: <show>#  
show debug info  
**Example:** #<show>#debugging  
➤ dhcp-server  
path: <show>#  
show LAN status and DHCP server info  
**Example:** #<show># dhcp-server  
➤ dial-rule  
path: <show>#  
show digital-map info  
**Example:** #<show># dial-rule  
➤ interface  
path: <show>#  
show LAN info

**Example:**#<show>#interface fastethernet lan

show WAN info

**Example:**#<show>#interface fastethernet wan

➤ ip

path: <show>#

show arp table info

**Example:**#<show>#ip arp

Show DNS server info

**Example:**#<show>#ip dns

Show netstate info

**Example:**#<show>#ip netstat

Show route info

**Example:**#<show>#ip route

Show icmp packets Stat.

**Example:**#<show>#ip icmp

Show igmp packets Stat.

**Example:**#<show>#ip igmp

Show ip packets Stat.

**Example:**#<show>#ip ip

Show RTP packets Stat.

**Example:**#<show>#ip rtp

Show TCP packets Stat.

**Example:**#<show>#ip tcp

Show UDP packets Stat.

**Example:**#<show>#ip udp

➤ memory

path: <show>#

show IP phone memory

**Example:**#<show>#memory

➤ nat

path: <show>#

show NAT information

**Example:**#<show>#nat

➤ port

path: <show>#

show caller-ID info

**Example:**#<show>#port callerID

show dsp info

**Example:**#<show>#port dsp

show hotline info

**Example:**#<show>#port hotline

show black list info

**Example:**#<show>#port in-limit

show outgoing limit info

**Example:**#<show>#port out-limit

show current phone number

**Example:**#<show>#port number

show current port status

**Example:**#<show>#port status

➤ PPPoE

path: <show>#

show PPPoE info

**Example:**#<show># pppoe

➤ qos  
path: <show>#  
show QoS table info  
**Example:**#<show>#qos  
➤ sip  
path: <show>#  
show sip info  
**Example:**#<show>#sip  
➤ udptunnel  
path: <show>#  
show UDP tunnel info  
**Example:**#<show># udptunnel

➤ uptime  
path: <show>#  
show running time  
**Example:**#<show># uptime  
➤ version  
path: <show>#  
show IP phone version  
**Example:**#<show># version

#### 5.1.8 telnet and logout

Usage: #telnet –target -port

    Login:xxx  
    Password:xxx  
    #  
    #logout

#### 5.1.9 timesettings

path: <time>#  
---manualset –year xxx –month xxx –day xxx –hour xxx –minute xxx –second xxx  
**Example:**<time>#manulset –year 2004 –month 10 –day 1 –hour 8 –minitute 30 –second 0

[disable]enable SNTP server       ---sntp [no] start  
Set SNTP IP address               ---sntp server x.x.x.x  
Set SNTP server timeout           ---sntp timeout xxx  
Set timezone (-12~+12)            ---sntp zone xxx

Show SNTP info                   ---sntp show  
Show current time                ---print

#### 5.1.10 tracert trace network path info

usage: #tracert –host

**Example:**#tracert HYPERLINK "http://www.google.com" μwww.google.com§

#### 5.1.11 update IP phone

usage: # update ftp –user xxx –password xxx –ip x.x.x.x –file xxx  
# update tftp –ip x.x.x.x –file xxx

**Example:**# update ftp –user abc –password 123 –ip 202.112.20.15 –file AT530.dlf

#### 5.1.12 upload configure file

usage: # upload ftp –user xxx –password xxx –ip x.x.x.x –file xxx  
# upload tftp –ip x.x.x.x –file xxx

## 6 Network Diagnosis

There are some telnet commands for checking your network. Now Listing below for your information

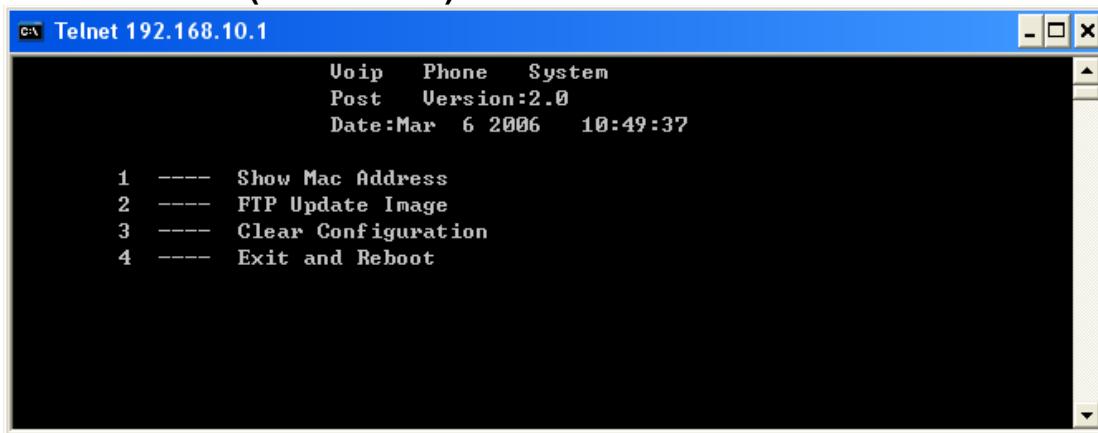
Command	Function	Example
ping	Check if the destination is accessible	#ping www.google.com
tracert	Show network path info	#tracert www.google.com
show basic	Show network settings	#show basic
show ip route	Show route table	#show ip route
show ip arp	Show arp table	#show ip arp
show ip netstat	Netstat programme	#show ip netstat
telnet	Telnet to another device	#telnet 192.168.1.2

## 7 Restore to factory default

#setdefault clear IP phone settings expect network part

#setdefault all clear all settings.

## 8 POST Mode(safe mode)



AT530 provide safe mode. When there is booting problem because of setting problem or firmware problem. User can restore the factory setting or upgrade to a new firmware to solve this problem.

### How to enter safe mode?

There will be a schedule bar in the AT530 booting procedure, press # key within the first 5 seconds, then the phone will go to POST mode. It has a default ip 192.168.10.1 in POST mode. User may change the PC's IP address to 192.168.10.xx and telnet to 192.168.10.1 to access the IP phone in POST mode.

User can accord the guide in post mode to clear the settings or upgrade the firmware.

## 9 FAQ

### 9.1.1 How many servers may AT530 register simultaneously?

AT530 is able to register two SIP servers simultaneously, and redundancy servers. User can configure the dial peer to route calls between these servers. Please refer "[How to use the dial rule?](#)" for detail.

### 9.1.2 Why the settings vanish after reboot?

Please go to Config Manage→Save Config to save your setting always.

### 9.1.3 How to use the dial rule?

AT530 provide flexible dial rule, with different dial-rule configure, user can easily implement the following function:

---Replace, delete or add prefix of the dial number.

---Make direct IP to IP call

---Place the call to different servers according the prefix.

You can click "Add" to add a new dial rule. Below is the detail setting of the dial-rule:

**Phone Number:** The Number suit for this dial rule, can be set as full match or prefix match. Full match means that if the number user dialed is completely the same as this number, the call will use this dial-rule. Prefix match means that if prefix of the number that the user dials is the same as the prefix, the call will use this dial-rule, to distinguish from the full match case, you need to add "T" after the prefix number in the phone number setting.

**Call Mode:** support SIP..

**Destination (optional):** call destination, can be IP or domain. Default is 0.0.0.0, in this case the call will be routed to the Public SIP server. If you set the destination to 255.255.255.255, then the call will be routed to the private SIP server. Also you can key other address here to make direct IP calls

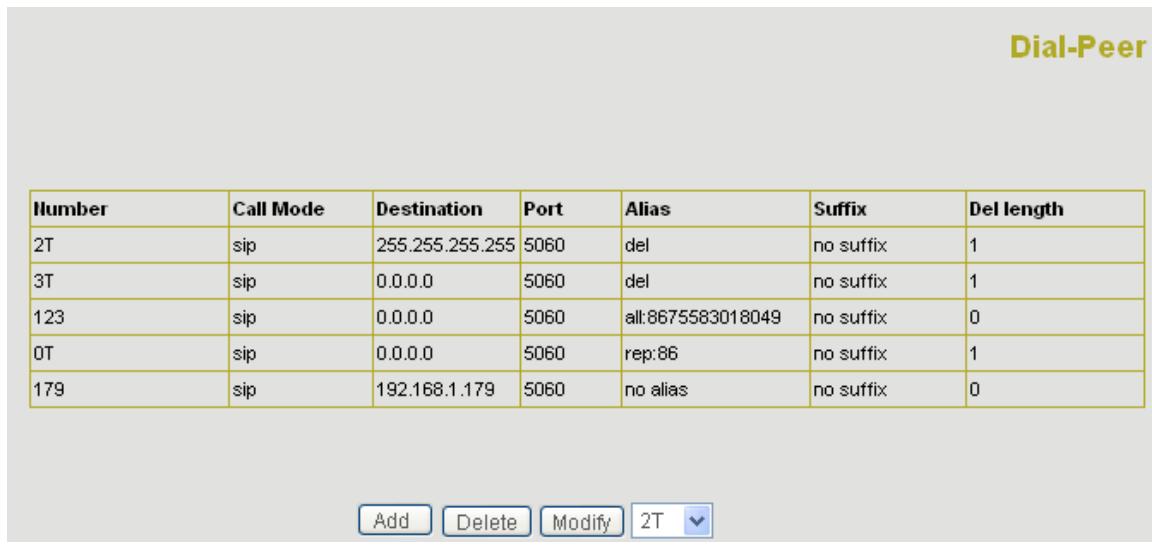
**Port (optional):** Configure the port of the destination, default is 5060 in SIP

**Alias (optional):** Set up the Alias. We support four Alias as below. Alias need to co-work with the *Del Length*:

- add:xxx, add prefix to the phone number, can set to reduce the dial length.
- all: xxx, replace the phone number with the xxx, can use as speed dial function.
- del, delete the first N numbers. N is set in the *Del Length*
- rep:xxx □ replace the first N numbers. N is set in the *Del Length*. For Example: Use wants to place a call 8610-62281493, then you can set the *phone number* in the dial rule as 010T, and set the *Alias* as rep:8610, and set the *Del Length* to 3. Then all calls begin with 010 will be changed to 8610 xxxxxxxx.

**Suffix (optional):** Configure suffix, show no suffix if not set

Instance:



Number	Call Mode	Destination	Port	Alias	Suffix	Del length
2T	sip	255.255.255.255	5060	del	no suffix	1
3T	sip	0.0.0.0	5060	del	no suffix	1
123	sip	0.0.0.0	5060	alt:8675583018049	no suffix	0
0T	sip	0.0.0.0	5060	rep:86	no suffix	1
179	sip	192.168.1.179	5060	no alias	no suffix	0

**2T rule:** If the call starts with 2, the first 2 will be deleted, and the rest number will be sent to private SIP server.

**3T rule:** If the call starts with 3, the first 3 will be deleted, and the rest number will be sent to public SIP server.

**123 rule:** Dial 123 and will send 8675583018049 to your server. Used as speed dial function.

**0T rule:** If the calls is begin with 0, the first 0 will be replace by 86. Means that if you dial 075583018049 and AT530 will send 8675583018049 to your server.

**179 rule:** when you dial 179 , the call will send to 192.168.1.179, suit for LAN application without set up a sip server.

#### 9.1.4 How to use speed dial function?

There are 9 speed dial keys in the AT530 panel, Usage:

Set speed dial number: press the speed key and enter the speed dial number and then press Menu/OK key to save the setting.

Pick up the handset and press the speed dial key to dial the pre-define number.

#### 9.1.5 How to configure digital map?

Please refer the [digit\\_map](#).

#### 9.1.6 How to use Call Forward, Call Transfer and 3-way Conference calls?

User may set up the configuration in the *Call Service* page to use these value add service.

**Call Service**

<b>Hotline</b>	<input type="text"/>		
<b>Call Forward</b>	<input checked="" type="radio"/> Off <input type="radio"/> Busy <input type="radio"/> No Answer <input type="radio"/> Always		
	Phone Number <input type="text"/>	Addr <input type="text"/>	Port <input type="text" value="5060"/>
<input type="checkbox"/> No Disturb	<input type="checkbox"/> Ban Outgoing		
<input checked="" type="checkbox"/> Enable Call Transfer	<input checked="" type="checkbox"/> Enable Call Waiting		
<input checked="" type="checkbox"/> Enable Three Way Call	<input checked="" type="checkbox"/> Accept Any Call		
<input type="checkbox"/> Auto Answer	<input type="checkbox"/> Enable Voice Record		
<input type="checkbox"/> User-Defined Voice	<input checked="" type="checkbox"/> Incoming Record Playing		
20 <input type="text"/> No Answer Time(seconds)			

➤ Call Forward:

---Forward when busy: select *Busy* in the *Call Forward* Field, and Key in the destination phone number in the *Forward Number*. If some one calls you when you having a call, the caller will be forwarded to the destination number.

---Forward no answer: Select *No Answer* in the *Call Forward* Field, and Key in the destination phone number in the *Forward Number*, fill the time in the *No Answer Time*. If some one calls you and no one answer the caller during the No Answer Time, the call will be forward to the destination number.

---Forward Always: Select *Always* in the *Call Forward* Field, and Key in the destination phone number in the *Forward Number*, then any one call this gateway will be forward to the destination number.

➤ Call Transfer:

Check the *Enable Call Transfer*.

**Unattended transfer:**

If A is the AT530 user, and B calls and talking with A through VoIP. A can **press FWD button** to hold the call with B, and then **enter C's number**. B will be transferred to C and can talk with C.

**Attended transfer:**

Only SIP protocol support this function .If A is the AT530 user, and B calls and talking with A through VoIP. A can **press Hold button** to hold the call with B, and then **enter C's number** to talk will C. and **press Hold** to switch back to A, and then press **FWD** key , B will be transferred to C and can talk with C.

➤ 3-Way Conference Calls

Check *Enable Three Way Call*

Assume A is the AT530 user, and B calls and talking with A through VoIP. A can **press hold button** to hold the call with B, then **enter C's number** to talk with C, and then **press \* button** again to make 3-way conference calls.

### 9.1.7 How to use the record function?

Call Service

Hotline	<input type="text"/>		
Call Forward	<input checked="" type="radio"/> Off <input type="radio"/> Busy <input type="radio"/> No Answer <input type="radio"/> Always		
	Phone Number <input type="text"/>	Addr <input type="text"/>	Port <input type="text" value="5060"/>
<input type="checkbox"/> No Disturb		<input type="checkbox"/> Ban Outgoing	
<input checked="" type="checkbox"/> Enable Call Transfer		<input checked="" type="checkbox"/> Enable Call Waiting	
<input checked="" type="checkbox"/> Enable Three Way Call		<input checked="" type="checkbox"/> Accept Any Call	
<input type="checkbox"/> Auto Answer		<input type="checkbox"/> Enable Voice Record	
<input type="checkbox"/> User-Defined Voice		<input checked="" type="checkbox"/> Incoming Record Playing	
20 <input type="text"/> No Answer Time(seconds)			
<input type="button" value="Apply"/>			

AT530 provides record function. With this function, user may record three VoIP message and one local message.

#### Active answering machine:

Select “**Enable Voice Record**” to active answering machine, and config **No Answer Time**. If there is an incoming call and no one answer the call. After timeout, AT530 will auto answer this call and ask the caller to leave message.

**Incoming Record Playing:** play the message when recording.

**User-Defined Voice:** Use customizes greeting voice for answering machine.

Notice: AT530 supports three message maximum, each message can be 90 seconds. Answering will be deactivated if the message numbers is 3.

#### Record local message:

User may use local message to leave message to other local users.

Please refer the **Record** button function as below:

Record Function		
Level1	Level2	Description
Received	New	New message info
	Old	Old message info
	Record	Enable/disable answering machine
	Playing	Enable/disable Incoming Record Playing
Local	Play	Play local message
	Rec	Record local message
User define	Switch	Enable/disable customize greeting message
	Play	Play customize greeting message
	Rec	Record customize greeting message

### 9.1.8 How to use set the IP type via keypad?

In the idle mode, user may us the keypad to set the IP type as the below procedure:

Keep pressing the button 1 for changing to static mode.

Keep pressing the button 2 for changing to DHCP mode.

Keep pressing the button 3 for changing to PPPoE mode.

### 9.1.9 VLAN implement

AT530 support rich 802.1Q/P protocol and Diffserv configuration. Through its flexible VLAN function, you can set the voice/signaling and data packets in different VLAN via different VLAN id.

Different implement of VLAN function:

1: if “Data/Voice VLAN differentiated” is undifferentiated. Device will set the same vlan ID for voice and data. As show below

**QoS Configuration**

<input type="checkbox"/> VLAN Enable			
<input checked="" type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated <input type="button" value="Undifferentiated"/>	
<input checked="" type="checkbox"/> DiffServ Enable		DiffServ Value <input type="text" value="0x b8"/>	<input type="button" value="0x b8"/>
Voice VLAN ID	<input type="text" value="256"/> (0 - 4095)	Data VLAN ID	<input type="text" value="254"/> (0 - 4095)
Voice 802.1P Priority	<input type="text" value="0"/> (0 - 7)	Data 802.1P Priority	<input type="text" value="0"/> (0 - 7)

Or

**QoS Configuration**

<input checked="" type="checkbox"/> VLAN Enable			
<input type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated <input type="button" value="Undifferentiated"/>	
<input checked="" type="checkbox"/> DiffServ Enable		DiffServ Value <input type="text" value="0x b8"/>	<input type="button" value="0x b8"/>
Voice VLAN ID	<input type="text" value="256"/> (0 - 4095)	Data VLAN ID	<input type="text" value="254"/> (0 - 4095)
Voice 802.1P Priority	<input type="text" value="0"/> (0 - 7)	Data 802.1P Priority	<input type="text" value="0"/> (0 - 7)

2. if “Data/Voice VLAN differentiated” is Tag differentiated but the DiffServ is disable. Device won’t distinguish the voice, signaling and data stream. It will add the same data vlan id to them. As below:

**QoS Configuration**

<input checked="" type="checkbox"/> VLAN Enable					
<input type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated			
<input type="checkbox"/> DiffServ Enable		DiffServ Value			
Voice VLAN ID	256	(0 - 4095)	Data VLAN ID	254	(0 - 4095)
Voice 802.1P Priority	0	(0 - 7)	Data 802.1P Priority	0	(0 - 7)
<input type="button" value="Submit"/>					

Or

**QoS Configuration**

<input checked="" type="checkbox"/> VLAN Enable					
<input checked="" type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated			
<input type="checkbox"/> DiffServ Enable		DiffServ Value			
Voice VLAN ID	256	(0 - 4095)	Data VLAN ID	254	(0 - 4095)
Voice 802.1P Priority	0	(0 - 7)	Data 802.1P Priority	0	(0 - 7)
<input type="button" value="Submit"/>					

3. if “Data/Voice VLAN differentiated” is Tag differentiated and diffServ are both enable. Then device will distinguish the voice, signaling and data stream to VLAN ID setting. As below:

**QoS Configuration**

<input checked="" type="checkbox"/> VLAN Enable					
<input checked="" type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated			
<input checked="" type="checkbox"/> DiffServ Enable		DiffServ Value			
Voice VLAN ID	256	(0 - 4095)	Data VLAN ID	254	(0 - 4095)
Voice 802.1P Priority	0	(0 - 7)	Data 802.1P Priority	0	(0 - 7)
<input type="button" value="Submit"/>					

Or

**QoS Configuration**

<input checked="" type="checkbox"/> VLAN Enable			
<input type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated	
<input checked="" type="checkbox"/> DiffServ Enable		DiffServ Value	
Voice VLAN ID	256 (0 - 4095)	Data VLAN ID	254 (0 - 4095)
Voice 802.1P Priority	0 (0 - 7)	Data 802.1P Priority	0 (0 - 7)
<input type="button" value="Submit"/>			

4. if “Data/Voice VLAN differentiated” is Date untagged and diffServ are both enable. Then device will undistinguish the date to VLAN ID setting. As below:

**QoS Configuration**

<input checked="" type="checkbox"/> VLAN Enable			
<input type="checkbox"/> VLAN ID Check Enable		Voice/Data VLAN differentiated	
<input checked="" type="checkbox"/> DiffServ Enable		DiffServ Value	
Voice VLAN ID	256 (0 - 4095)	Data VLAN ID	data Untaged
Voice 802.1P Priority	0 (0 - 7)	Data 802.1P Priority	0 (0 - 7)
<input type="button" value="Submit"/>			

5. if VLAN is disable. Device won't add any vlan ID to the stream. In this case, if the Diffserv is enable, the DiffServ value response to the voice/signaling stream.

6. When VLAN function is enable. If “VLAN ID check” is enable, AT530 will have strict requirement on the VLAN, it won't handle any packets with different VLAN ID. If “VLAN ID check” is disable, AT530 will handle the packets even from different vlan ID. Please notice that VLAN ID check is enable in default.